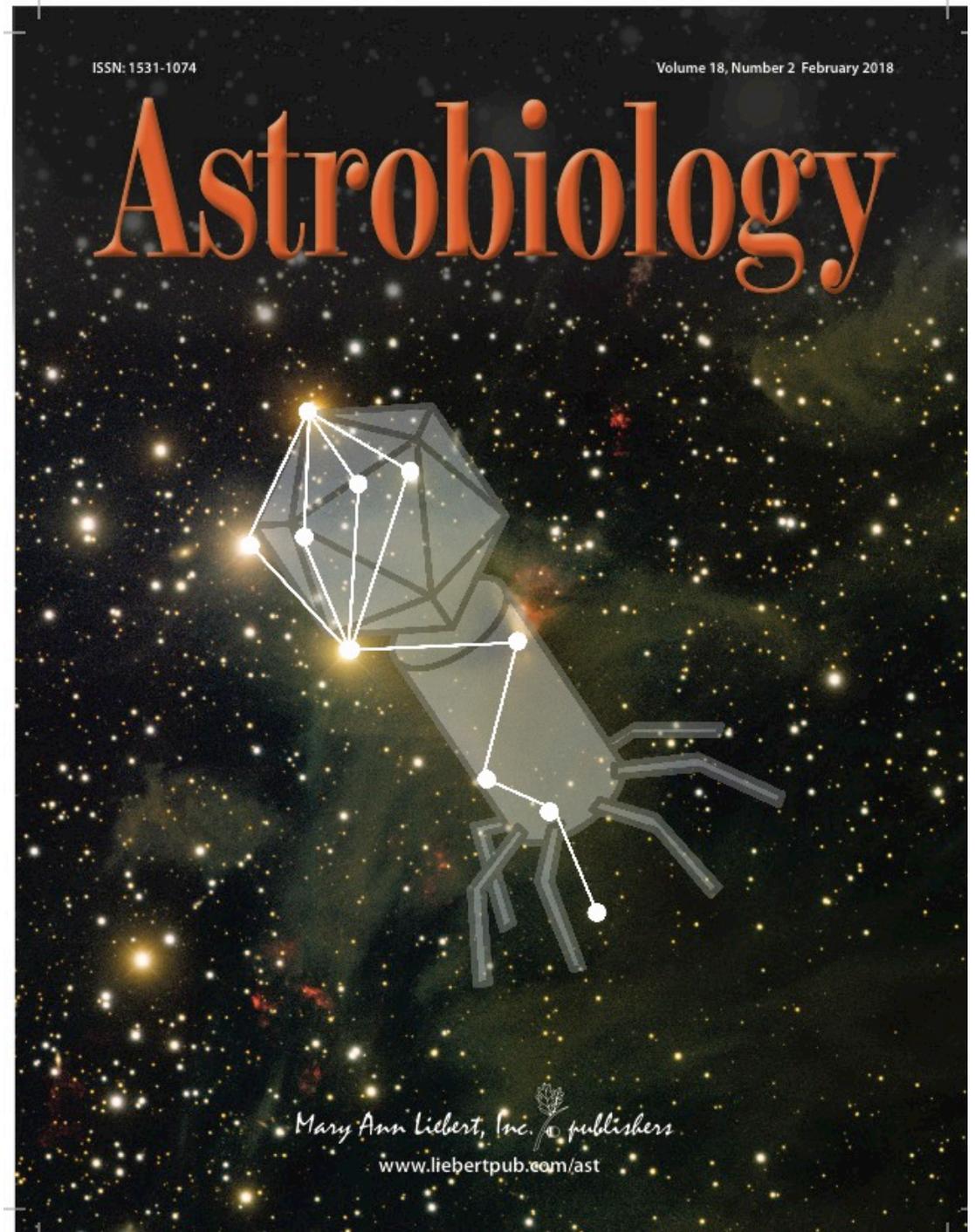


Astrovirology: Viruses at Large in the Universe

A. Berliner, T.
Mochizuki and K.
Stedman, 2018

Astrobiology, **18/2**, 207-223



“Killer Alien Viruses”



Alien 'space viruses' which could wipe out humanity may be terrifyingly common

Heavenly bugs could cause hellish destruction on Planet Earth

METRO.CO.UK

19 Jan 2018

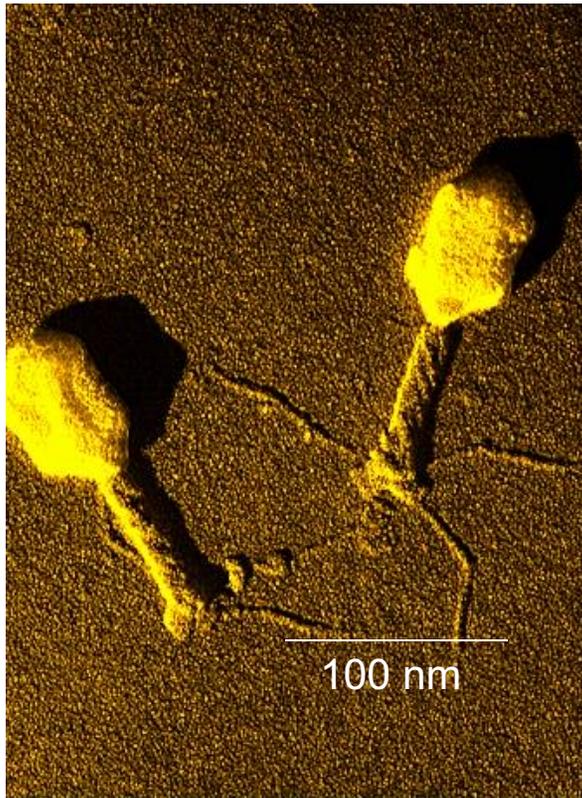
The NAI (NASA) Virus Focus Group

The purpose of the NAI Virus Focus Group is to provide a forum where researchers from many disciplines, from both within the NAI and the broader science community, can address important questions regarding the **origin and evolution of viruses**, review the current state of knowledge, and formulate new areas of research to advance our understanding of **how viruses may have influenced the origin and evolution of life** here on Earth, and perhaps elsewhere in the Solar System.

What NAIViFoG Did?

The NASA Astrobiology Virus Focus Group has been active in sponsoring workshops, symposia and a workshop/field trip. The workshops have addressed **virus evolution, ubiquity, ecology, diversity, potential beneficial roles of viruses, and the survivability of viruses in the space environment.**

Format of the Virus Focus Group



Scanning electron micrograph of T4 virus

- Approved 9/9/2002
- Workshops/meetings held in conjunction with larger meetings (e.g. ASM, ASV, AbSciCon)
- Field Workshops with invited speakers
- *Origin and evolution of viruses*
- *Viruses' role in evolution*
- Ecology, Diversity, Beneficial Viruses, Viruses in the Space environment.

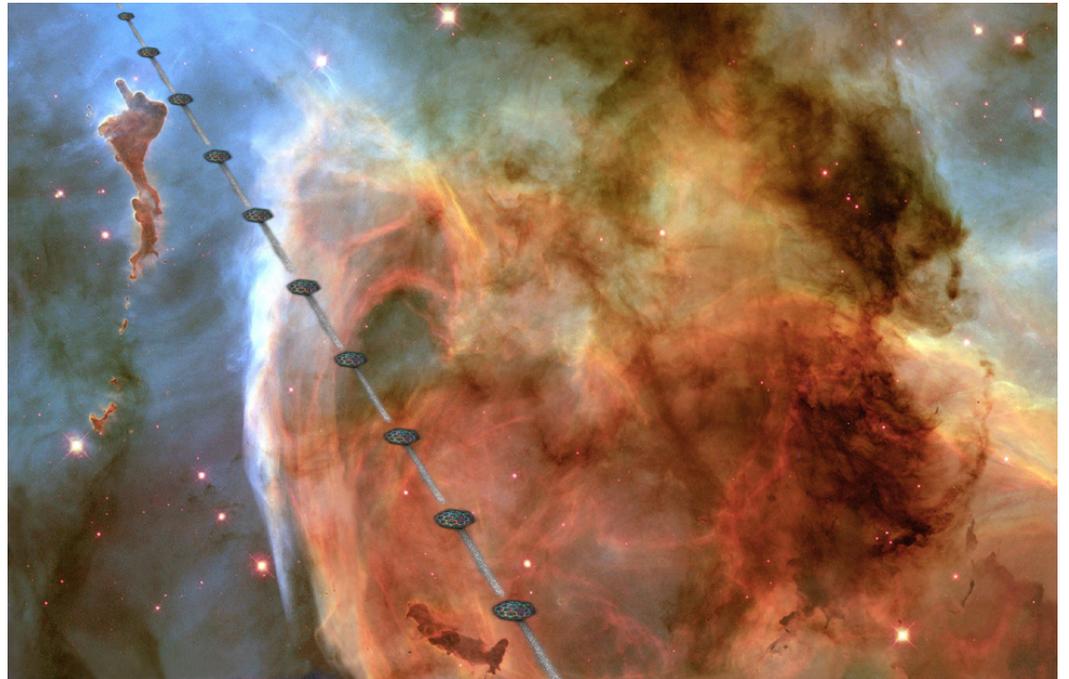
NAIViFoG Accomplishments

- Workshop Oct. 16-17, 2003, Portland, OR
 - 19 Participants, 13 Institutions, 2 Reporters
 - At least two collaborations directly resulted from the workshop.
 - <http://web.pdx.edu/~kstedman/NASA/NAI-VFGpics/NAI-VFGpics.html>



AbSciCon 2004

- First ever “Astrovirology” session
 - 31 March 2004
 - Invited speakers:
 - Roger Hendrix
 - Stephen S. Morse
 - Paul Turner
 - Mark Young
 - Ken Stedman
 - Baruch Blumberg



Mono/Mammoth Lakes

- Workshop and Field trip
 - 22-24 June, 2004
- 16 Participants, 13 Institutions, 6 Students, 1 media
- <http://web.pdx.edu/~kstedman/NASA/MonoMammoth.html>
- Meeting report published in *Astrobiology*, Vol 5, #4, 2005.



Lassen Volcanic National Park



- Workshop and Field trip

- 25-27 June, 2006

- 17 participants, 13 institutions, 6 students, 1 TV crew (CBC), 4 NASA/NAI participants

- Field trip to Allen Array, Hat Creek Observatory

- Hosted by Jill Tartar

- <http://web.pdx.edu/~kstedman/NASA/Lassen06.html>



Astrovirology: Workshop without walls

- Sept. 2019
- Organizational Meeting.
 - Wednesday 12:15-1:30, Balsam Room